

Custer Co. I doubt whether *minutissima* is separable even as a variety from *pygmaea*.

*P. (Punctum) conspecta* (Bland.) San Juan Co. (Ingersoll).

*P. (Thysanophora) ingersolli* (Bland.) San Juan Co. (Ingersoll); near Brush Creek, 10,000 ft., Custer Co.; Clearwater Creek, Grand Mesa, Mesa Co. A species of high altitudes.

*P. (Helicodiscus) lineata* (Say). Animas Valley (Ingersoll).

*Helix (Stenotrema) monodon* Rack. Colorado Springs (Yarrow). Beyond this record, nothing is known of any species of the group in Colorado. Probably the Colorado Springs *H. monodon* was introduced by human agency.

*H. (Vallonia) pulchella* var. *costata* (Müll.) San Juan Co. (Ingersoll); South Park (Yarrow); Micawber Mine, Custer Co.; Rock Creek, Routt Co.; Kremmling, Grand Co.; Pueblo Co.; near Salida, Chaffee Co.; Black Lake Creek, Summit Co.; Buzzard Creek, Mesa Co.; near Cattle Creek, Garfield Co. Perhaps *costata* deserves to rank as a species distinct from *pulchella*.

*H. pulchella costata* form *cyclophorella* (Ancey). The ribs in this form are close and delicate, but it seems to me referable to *costata*. Mr. Ancey has identified a specimen from West Mountain Valley as *cyclophorella*, and indeed, if the name is to be adopted, it will probably include at least a majority if not all of the Colorado specimens of *Vallonia*. Vide 11th Rept. Colo. Biol. Assn. (1889).

*H. pulchella pulchella* Müll. Binney records *pulchella* from Este's Park, but it is probable that the form was *costata*.

*West Cliff, Custer Co., Colorado, Dec. 10, 1889.*

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AN ANNOTATED LIST OF THE SHELLS OF ST. AUGUSTINE, FLA.

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BY C. W. JOHNSON.

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The following is a list of the shells which came under my observation while living at St. Augustine from 1881-88.

As very little dredging was done it is probably far from complete, but as some of the notes may be of interest to the Conchologist, I herewith submit it to the readers of the Nautilus.

*Octopus rugosus* Bosc. A few which are evidently this species, one large specimen is preserved in alcohol.

*Argonauta argo* L. Occasionally a shell is found after a storm.

*Loligo pealii* Lesueur. Quite common.

*Ommastrephes bartramii* Lesueur. One specimen, probably this species, is preserved in alcohol in a private collection.

*Spirula peronii* Lam. The internal spiral shells are common among the debris after storms.

*Murex spinicostata* Valenc. Living examples are rare. I have seen but three. By the numbers found in the shell mounds and fields it seems to have formally been quite plentiful and a special object of capture among the aborigines.

*Trosalpius cinereus* Say. Common on oysters.

*Eupleura caudata* Say. A few specimens.

*Purpura hemastoma* L. var. *floridana* Cour. Common on the old light-house rocks. It varies greatly in form. I have specimens varying from those without a shoulder or tubercles on the body-whorl, to those that are shouldered and bearing two prominent rows of tubercles.

*Purpura hemastoma* L. var. *undata* Lam. A few specimens found with the above.

*Fasciolaria distans* Lam. I think that this is distinct from *F. tulipa* L. The specimens collected here show no intermediate form. It seems to have a more limited distribution. I do not remember seeing any in the southern part of Florida, and among the quantities of shells brought from the Bahamas I never observed one, though *F. tulipa* L. is quite common. A color variety is occasionally found here in which the maculations and revolving lines are reddish-yellow to pink.

*Fasciolaria tulipa* Linn. Not common.

*Fasciolaria gigantea* Kien. Several specimens. I found a living specimen in the harbor nearly two feet in length.

*Fulgur carica* Gmel. Common and quite destructive to the oysters.

*Fulgur carica* Gmel. var. *eliceans* Mont. Thick and gibbous, with fewer and larger spines, occasionally a double row of spines on the shoulder of the whorls. More plentiful than the typical.

*Fulgur perversa* Linn. Common and some unusually large specimens.

*Fulgur canaliculata* Say. Not common, and smaller than those from more northern localities.

*Fulgur pycnum* Dillw. Not common.

*Nassa vibex* Say. Common on the sand bars between tides.

*Nassa acuta* Say. Rare. I doubt whether this is the same as *N. ambigua* Mont. This was the most common gasteropod in a deposit of shell brought up from forty feet below the surface in sinking the well of the Ponce de Leon Hotel.

*Nassa obsoleta* Say. Common on the mud between tides.

*Nassa trivittata* Say. A few on the ocean beach usually sea worn.

*Marginella apicina* Menke. A few sea-worn specimens.

*Olivella nutica* Say. Common on Bird Island beach.

*Olivella nutica* Say var. *nitidula* Dillw. More plentiful than the typical.

*Oliva litterata* Lam. Common. The specimens found here are longer and more cylindrical than those from the Gulf coast.

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#### GENERAL NOTES.

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ARION FOLIOLATUS GOULD, REDISCOVERED. You may announce in your Journal, if you wish, that Hemphill has sent one living *Arion foliolatus* Gld., from Olympia, Washington. One big fellow is over four inches long. It agrees perfectly with Gould's description and figures, though not quite so deep a red as the latter. It has the internal plate of *Prolepis*. The caudal mucus "pit" is, very plainly seen. Jaw with over 22 ribs, wide, low, scarcely arcuate.—W. G. BINNEY, *In letter to Ed.*

LIMAX HEWSTONI COOPER IN LOS ANGELES COUNTY. In "Nomenclature and Check-list of North American Land Shells," the *Limax Hewstoni* is not quoted south of San Francisco. I have often found a shelled snail at this place and these have been identified by Dr. J. G. Cooper of California as the *Limax (Amalia) Hewstoni*.—M. BURTON, *Williamson University, Los Angeles County, California.*

KANSAS SHELLS. I have identified the following species of Land Shells from Sedgwick County, Kansas: *Pupa contracta*, *corticaria*, *armifera*, *rupicola*, *fallax*, *Hyalina indentata* and *arborea*; *Helico-*